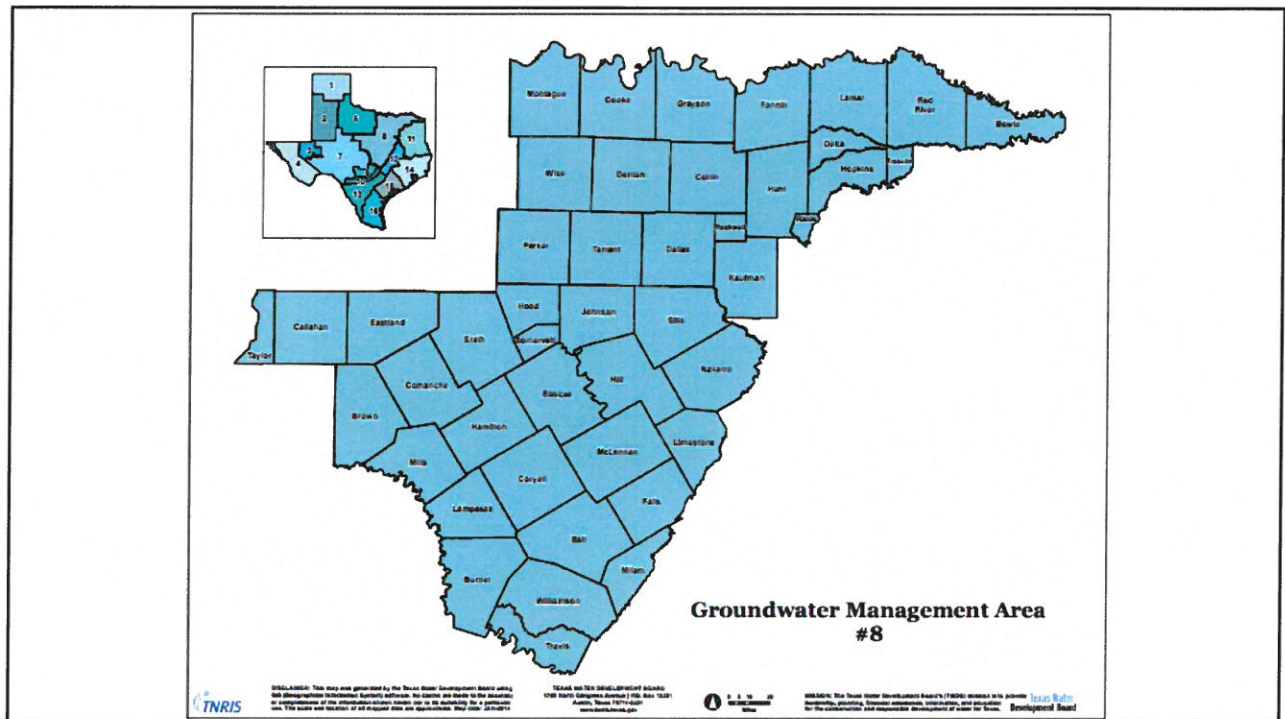


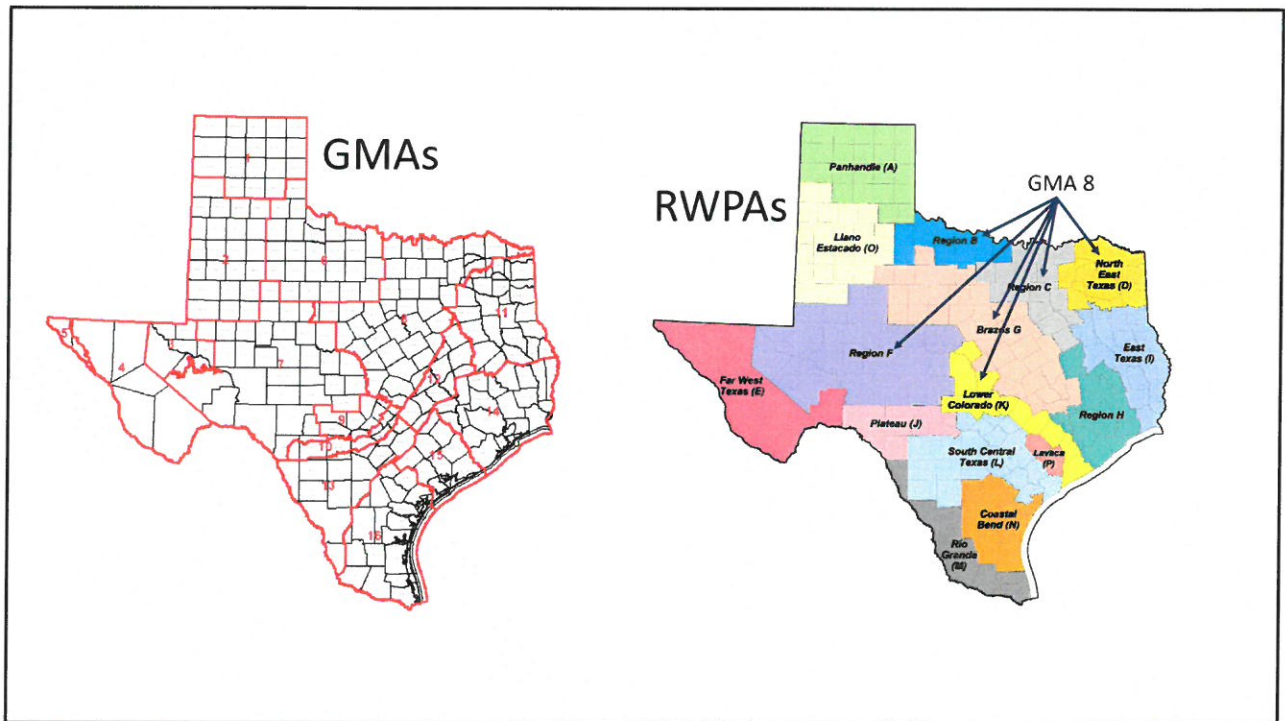
Groundwater Management Area 8 Meeting

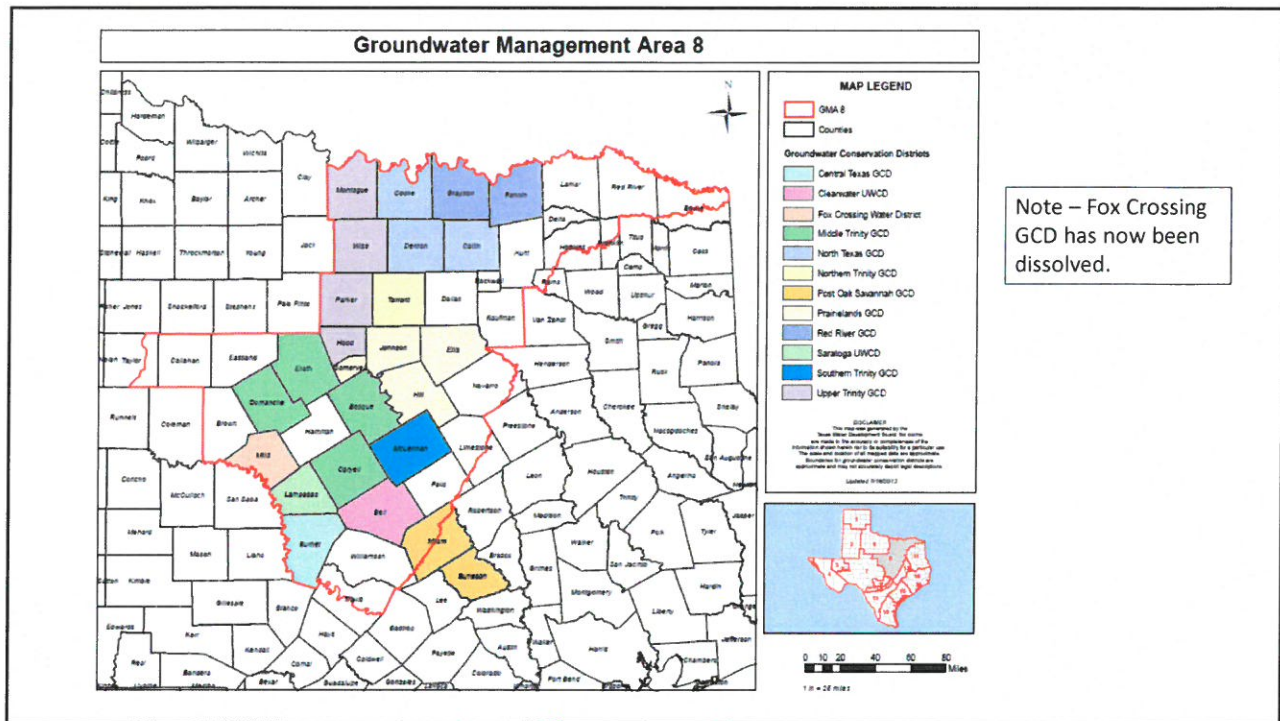
Cleburne Conference Center
Cleburne, Texas
May 27, 2015



Today's Considerations

- TWC Section 36.108 (d) (6) – socioeconomic impacts reasonably expected to occur
- TWC Section 36.108 (d) (7) – impact on the interests and rights in private property





Socioeconomic Impacts and Water Planning in Texas – A Brief History

- Texas Water Code Chapter 16.051 (a) the board shall prepare, develop, formulate, and adopt a comprehensive state water plan that . . . shall provide for . . . further economic development (companion provision in TWC Chapter 16.053 (a, b) for regional water plans).
- Texas Administrative Code (TAC), Title 31, Chapter 357.7 (4)(A) states, *“The executive administrator shall provide available technical assistance to the regional water planning groups, upon request, on water supply and demand analysis, including methods to evaluate the social and economic impacts of not meeting needs.”*

Socioeconomic Impacts and Water Planning in Texas – A Brief History (cont.)

- TAC, Title 31, Chapter 357.40 (a) RWPs shall include a quantitative description of the socioeconomic impacts of not meeting the identified water needs pursuant to §357.33(c) of this title (relating to Needs Analysis: Comparison of Water Supplies and Demands).

Socioeconomic Impacts Analysis

- Executed by TWDB at request of RWPGs
- Uses water supply needs from Regional Water Plan
- Point estimates of 1-year drought at 10-year intervals
- Analysis attempts to measure the impacts in the event that water user groups do not meet their identified water supply needs associated with a drought of record for one year.
- Multiple impacts examined
 - Sales, income, and tax revenue
 - Jobs
 - Population
 - School enrollment
- Results incorporated into final Regional Water Plan

Socioeconomic impact of not meeting water supply needs vs. impact of proposed desired future conditions

- Regional Water Planning (from TWDB)
 - Generate Input-Output Models combined with Social Accounting Models (IO/SAM) and develop economic baselines. Utilizes IMPLAN (Impact for Planning Analysis) software.
 - Economic baseline developed for counties, planning regions, and the state based on variables for 528 economic sectors as follows:

Socioeconomic impact of not meeting water supply needs vs. impact of proposed desired future conditions

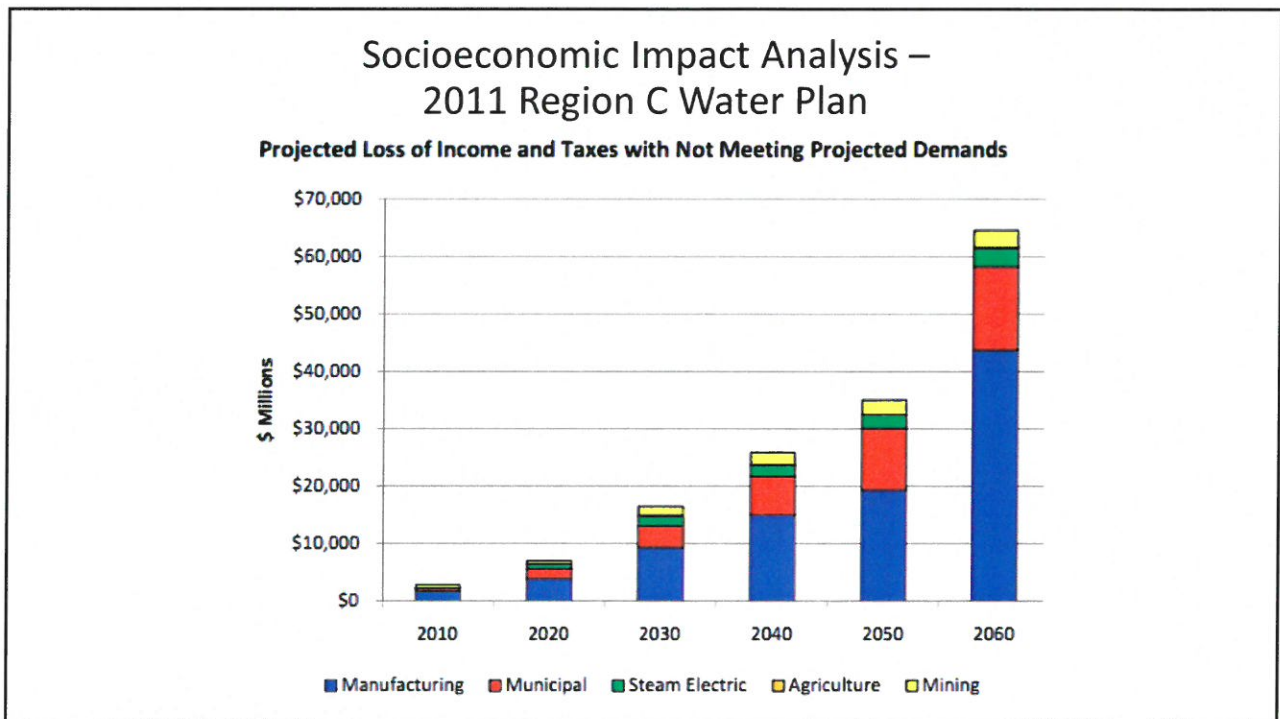
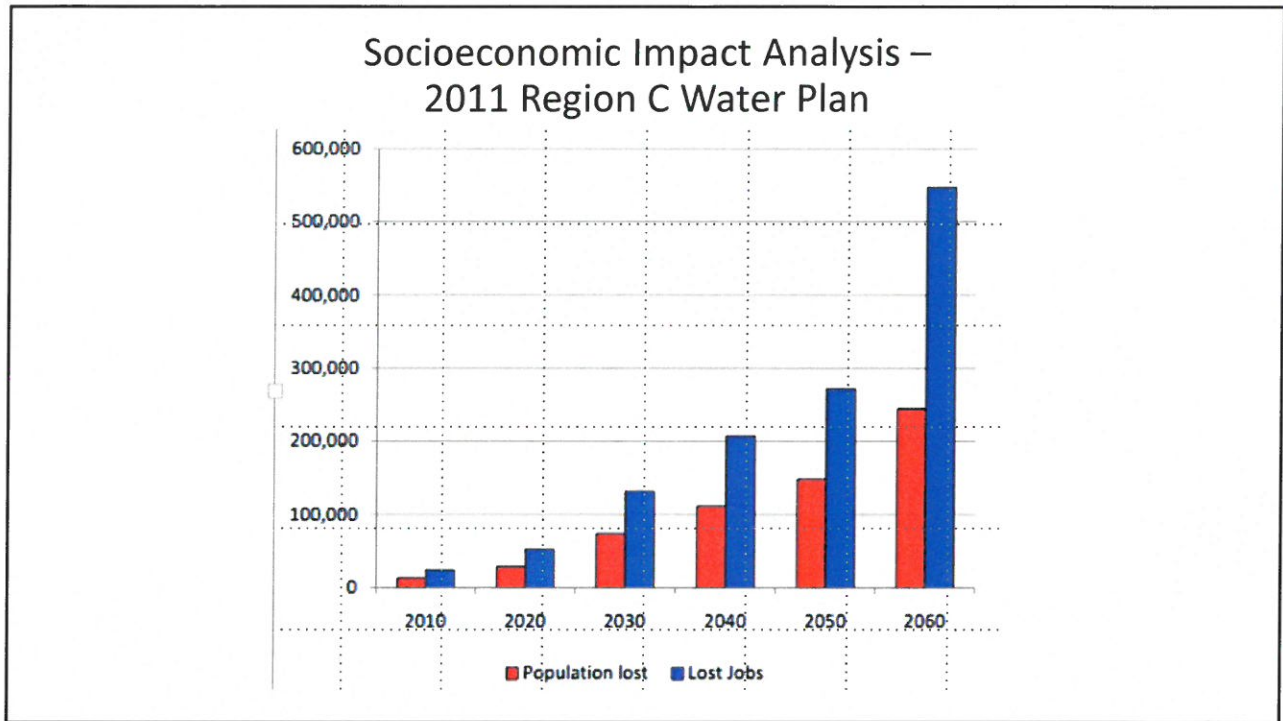
- output – total production of goods and services measured by gross sales revenues
- final sales – sales to end user in Texas (a region) and exports out of region
- Employment – number of full and part-time jobs required by a given industry
- Regional income – total payroll costs paid by industries, corporate income, rental income, and interest payments
- Business taxes – sales, excise, fees, licenses and other taxes paid during normal operation

Socioeconomic impact of not meeting water supply needs vs. impact of proposed desired future conditions

- Regional Water Planning (from TWDB - cont.)
 - Estimate direct and indirect impacts to business, industry, and agriculture
 - Impact associated with domestic water usage
- While useful for planning purposes, socioeconomic impacts developed for regional water planning **do not** represent a benefit-cost analysis.
- Analysis only executed for water user groups with needs for additional water supply.

Socioeconomic Impacts Analysis –
2011 Region C Water Plan

Year	Income (\$ Millions)	State and Local Taxes (\$ Millions)	Jobs Lost	Population Losses
2010	\$2,682.23	\$129.50	23,808	12,490
2020	\$6,668.39	\$340.74	52,165	28,278
2030	\$15,687.26	\$847.87	131,257	73,478
2040	\$24,553.45	\$1,287.96	206,836	111,021
2050	\$33,440.87	\$1,671.87	270,935	148,215
2060	\$61,457.79	\$3,059.54	546,676	244,179



Socioeconomic Impacts of NOT meeting water supply needs by water use sector and water user group (WUG)

- The following information was prepared by the TWDB for use by the RWPGs in preparation for the 2011 regional water plans.
- Information for the 2016 regional water plans is still in development.
- Information presented in following series of slides is a partial listing. Complete documentation of analysis will be included in appendix in explanatory report and be posted on the GMA 8 website.
- Citations included at the bottom of initial slide for each region covered.
- Similar analysis does not exist for evaluating socioeconomic impacts of proposed DFCs.

Impacts by County for Region B (\$ millions)

Montague County (\$millions)						
	2010	2020	2030	2040	2050	2060
County-Other						
Monetary value of domestic water shortages	50.29	50.36	50.38	50.39	50.37	50.38
Mining						
Reduced income from reduced crop production	51.81	51.62	51.55	51.59	51.69	51.69
Reduced business taxes from reduced crop production	50.18	50.16	50.15	50.16	50.17	50.17
Reduced jobs from reduced crop production	11	9	9	9	10	10

Impacts by county are not presented in the 2011 Region B Water Plan. For full analysis, see TWDB correspondence to Curtis Campbell from Stuart Norvell dated May 26, 2010, titled "Socioeconomic impact analysis of not meeting water needs for the 2011 Region B Regional Water Plan."

Impacts by County for Irrigation - Region C (\$ millions)

Irrigation (\$millions)						
	2010	2020	2030	2040	2050	2060
Cooke County						
Reduced income from curtailed crop production	\$0.04	\$0.04	\$0.04	\$0.04	\$0.04	\$0.04
Reduced business taxes from curtailed crop production	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Reduced jobs from curtailed crop production	1	1	1	1	1	1
Dallas County						
Reduced income from curtailed crop production	\$0.32	\$0.33	\$0.34	\$0.35	\$0.36	\$0.37
Reduced business taxes from curtailed crop production	\$0.04	\$0.04	\$0.04	\$0.04	\$0.04	\$0.04
Reduced jobs from curtailed crop production	4	4	4	5	5	5
Ellis County						
Reduced income from curtailed crop production	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25
Reduced business taxes from curtailed crop production	\$0.03	\$0.03	\$0.03	\$0.03	\$0.03	\$0.03
Reduced jobs from curtailed crop production	3	3	3	3	3	3
Grayson County						
Reduced income from curtailed crop production	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.03
Reduced business taxes from curtailed crop production	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Reduced jobs from curtailed crop production	0	0	0	0	0	0
Kaufman County						
Reduced income from curtailed crop production	\$0.00	\$0.18	\$0.21	\$0.18	\$0.11	\$0.00
Reduced business taxes from curtailed crop production	\$0.00	\$0.01	\$0.01	\$0.01	\$0.00	\$0.00
Reduced jobs from curtailed crop production	0	2	3	2	1	0

Impacts by county are not presented in the 2011 Region C Water Plan. For full analysis, see TWDB correspondence to Jim Parks from Stuart Norvell dated July 20, 2010, titled "Socioeconomic impact analysis of not meeting water needs for the 2011 Region C Regional Water Plan."

Impacts by County for Manufacturing - Region C (\$ millions)

Manufacturing (\$millions)						
	2010	2020	2030	2040	2050	2060
Collin County						
Reduced income from reduced manufacturing output	\$0.00	\$94.81	\$338.63	\$471.63	\$603.55	\$720.79
Reduced business taxes from reduced manufacturing output	\$0.00	\$5.64	\$20.13	\$28.04	\$35.89	\$42.86
Reduced jobs from reduced manufacturing output	0	328	1,173	1,634	2,091	2,497
Cooke County						
Reduced income from reduced manufacturing output	\$243.81	\$279.88	\$311.59	\$343.30	\$370.63	\$405.61
Reduced business taxes from reduced manufacturing output	\$15.95	\$18.31	\$20.39	\$22.46	\$24.25	\$26.54
Reduced jobs from reduced manufacturing output	1,795	2,061	2,294	2,528	2,729	2,987
Dallas County						
Reduced income from reduced manufacturing output	\$673.11	\$1,169.56	\$3,152.36	\$3,945.43	\$4,829.54	\$10,912.30
Reduced business taxes from reduced manufacturing output	\$31.64	\$54.98	\$148.19	\$185.47	\$227.03	\$512.98
Reduced jobs from reduced manufacturing output	1,915	3,327	6,967	11,222	13,737	31,039
Denton County						
Reduced income from reduced manufacturing output	\$55.58	\$180.04	\$565.50	\$761.25	\$990.84	\$1,291.71
Reduced business taxes from reduced manufacturing output	\$3.56	\$11.53	\$36.20	\$48.73	\$63.43	\$82.69
Reduced jobs from reduced manufacturing output	172	558	1,753	2,359	3,071	4,003
Ellis County						
Reduced income from reduced manufacturing output	\$0.00	\$0.00	\$0.00	\$0.00	\$6.88	\$28.24
Reduced business taxes from reduced manufacturing output	\$0.00	\$0.00	\$0.00	\$0.00	\$0.47	\$1.95
Reduced jobs from reduced manufacturing output	0	0	0	0	29	119
Fannin County						

Impacts by County for Mining - Region C (\$ millions)

Mining (\$millions)						
	2010	2020	2030	2040	2050	2060
Collin County						
Reduced income from reduced mining activity	\$0.02	\$0.65	\$1.00	\$1.23	\$1.44	\$1.57
Reduced business taxes from reduced mining activity	\$0.00	\$0.06	\$0.13	\$0.16	\$0.18	\$0.20
Reduced jobs from reduced mining activity	0	4	6	7	9	9
Ector County						
Reduced income from reduced mining activity	\$1.74	\$9.17	\$6.25	\$6.58	\$6.90	\$7.18
Reduced business taxes from reduced mining activity	\$0.22	\$1.17	\$0.80	\$0.84	\$0.88	\$0.92
Reduced jobs from reduced mining activity	10	55	37	39	41	43
Dallas County						
Reduced income from reduced mining activity	\$17.37	\$18.75	\$18.52	\$18.52	\$18.52	\$18.52
Reduced business taxes from reduced mining activity	\$2.22	\$2.40	\$2.37	\$2.37	\$2.37	\$2.37
Reduced jobs from reduced mining activity	104	112	111	111	111	111
Jack County						
Reduced income from reduced mining activity	\$15.70	\$15.24	\$14.77	\$14.77	\$14.77	\$14.77
Reduced business taxes from reduced mining activity	\$2.01	\$1.95	\$1.89	\$1.89	\$1.89	\$1.89
Reduced jobs from reduced mining activity	94	91	89	89	89	89
Parker County						
Reduced income from reduced mining activity	\$350.93	\$0.00	\$0.12	\$0.00	\$0.16	\$0.09
Reduced business taxes from reduced mining activity	\$44.96	\$0.00	\$0.01	\$0.00	\$0.02	\$0.01
Reduced jobs from reduced mining activity	2,103	0	1	0	1	1

Impacts by County for Steam-Electric - Region C (\$ millions)

Steam-electric (\$millions)						
	2010	2020	2030	2040	2050	2060
Dallas County						
Reduced income from reduced electrical generation	\$0.00	\$0.00	\$63.94	\$80.75	\$69.64	\$115.67
Reduced business taxes from reduced electrical generation	\$0.00	\$0.00	\$9.18	\$11.59	\$10.00	\$16.60
Reduced jobs from reduced electrical generation	0	0	217	274	237	393
Ellis County						
Reduced income from reduced electrical generation	\$0.00	\$0.00	\$0.00	\$7.37	\$237.90	\$457.02
Reduced business taxes from reduced electrical generation	\$0.00	\$0.00	\$0.00	\$1.06	\$34.15	\$65.60
Reduced jobs from reduced electrical generation	0	0	0	25	809	1,554
Fannin County						
Reduced income from reduced electrical generation	\$0.00	\$0.00	\$21.66	\$28.43	\$36.71	\$46.80
Reduced business taxes from reduced electrical generation	\$0.00	\$0.00	\$3.11	\$4.08	\$5.27	\$6.72
Reduced jobs from reduced electrical generation	0	0	74	97	125	159
Freestone County						
Reduced income from reduced electrical generation	\$0.00	\$0.00	\$0.00	\$0.00	\$64.62	\$187.54
Reduced business taxes from reduced electrical generation	\$0.00	\$0.00	\$0.00	\$0.00	\$9.28	\$26.92
Reduced jobs from reduced electrical generation	0	0	0	0	220	638
Henderson County						
Reduced income from reduced electrical generation	\$0.00	\$0.00	\$139.23	\$174.48	\$209.72	\$244.97
Reduced business taxes from reduced electrical generation	\$0.00	\$0.00	\$19.98	\$25.04	\$30.10	\$35.16
Reduced jobs from reduced electrical generation	0	0	473	593	713	833

Impacts by WUG for Municipal - Region C (\$ millions)

Municipal (\$millions)						
	2010	2020	2030	2040	2050	2060
Able Springs						
Monetary value of domestic water shortages	\$0.00	\$15.79	\$19.68	\$24.09	\$29.80	\$36.85
Lost income from reduced commercial business activity	\$0.00	\$2.44	\$3.04	\$3.72	\$4.60	\$5.70
Lost jobs due to reduced commercial business activity	0	98	122	150	185	229
Lost state and local taxes from reduced commercial business activity	\$0.00	\$0.38	\$0.47	\$0.58	\$0.71	\$0.88
Lost utility revenues	\$0.00	\$2.20	\$2.74	\$3.35	\$4.14	\$5.13
Addison						
Monetary value of domestic water shortages	\$0.65	\$3.62	\$4.45	\$6.10	\$26.05	\$35.19
Lost utility revenues	\$1.70	\$6.70	\$8.24	\$10.04	\$12.05	\$14.80
Aledo						
Monetary value of domestic water shortages	\$0.00	\$15.79	\$19.68	\$24.09	\$29.80	\$36.85
Lost income from reduced commercial business activity	\$0.00	\$2.44	\$3.04	\$3.72	\$4.60	\$5.70
Lost jobs due to reduced commercial business activity	0	98	122	150	185	229
Lost state and local taxes from reduced commercial business activity	\$0.00	\$0.38	\$0.47	\$0.58	\$0.71	\$0.88
Lost utility revenues	\$0.00	\$1.28	\$2.89	\$4.50	\$4.80	\$4.80
Allen						
Monetary value of domestic water shortages	\$0.33	\$5.91	\$13.15	\$53.39	\$19.12	\$81.96
Lost utility revenues	\$1.06	\$12.27	\$21.64	\$26.96	\$31.47	\$34.47
Anna						
Monetary value of domestic water shortages	\$0.03	\$0.80	\$2.50	\$18.58	\$30.89	\$63.19
Lost utility revenues	\$0.09	\$1.36	\$3.28	\$5.50	\$8.33	\$15.38
Annetta						

Impacts by WUG for Municipal - Region D (\$ millions)

Municipal (\$millions)						
	2010	2020	2030	2040	2050	2060
Able Springs WSC						
Monetary value of domestic water shortages	\$0.00	\$0.00	\$0.00	\$0.00	\$2.14	\$38.81
Lost utility revenues	\$0.00	\$0.00	\$0.00	\$0.00	\$2.74	\$9.09
Bi-County WSC						
Monetary value of domestic water shortages	\$0.00	\$0.00	\$0.00	\$0.00	\$1.35	\$20.64
Lost utility revenues	\$0.00	\$0.00	\$0.00	\$0.00	\$1.47	\$4.61
Campbell WSC						
Monetary value of domestic water shortages	\$0.14	\$1.50	\$3.00	\$6.29	\$14.68	\$32.27
Lost income from reduced commercial business activity	\$0.00	\$0.00	\$0.28	\$0.59	\$1.25	\$2.30
Lost jobs due to reduced commercial business activity	0	0	11	24	50	92
Lost state and local taxes from reduced commercial business activity	\$0.00	\$0.00	\$0.04	\$0.09	\$0.19	\$0.36
Lost utility revenues	\$0.14	\$0.29	\$0.51	\$0.85	\$1.60	\$2.78
Canton						
Monetary value of domestic water shortages	\$0.00	\$0.01	\$0.03	\$0.35	\$6.50	\$26.60
Lost income from reduced commercial business activity	\$0.00	\$0.00	\$0.00	\$0.00	\$1.77	\$10.26
Lost jobs due to reduced commercial business activity	0	0	0	0	56	323
Lost state and local taxes from reduced commercial business activity	\$0.00	\$0.00	\$0.00	\$0.00	\$0.25	\$1.46
Lost utility revenues	\$0.00	\$0.01	\$0.05	\$0.35	\$1.21	\$2.63
Cash SUD						
Monetary value of domestic water shortages	\$0.01	\$0.41	\$1.40	\$4.82	\$10.18	\$18.29
Lost utility revenues	\$0.02	\$0.08	\$0.18	\$0.35	\$0.75	\$1.34
Colleta						

Impacts by county are not presented in the 2011 Region D Water Plan. For full analysis, see TWDB correspondence to Richard LeTourneau from Stuart Norvell dated June 4, 2010, titled "Socioeconomic impact analysis of not meeting water needs for the 2011 North East Texas Regional Water Plan."

Impacts on Irrigation (Brown County) in Region F (\$ millions)

Irrigation cont. (\$millions)						
	2010	2020	2030	2040	2050	2060
Andrews County						
Reduced income from curtailed crop production	\$2.6873	\$2.6810	\$2.6522	\$2.3621	\$2.3197	\$2.2847
Reduced business taxes from curtailed crop production	\$0.1093	\$0.1090	\$0.1079	\$0.0961	\$0.0943	\$0.0929
Reduced jobs from curtailed crop production	33	33	33	29	29	28
Borden County						
Reduced income from curtailed crop production	\$0.49	\$0.49	\$0.49	\$0.49	\$0.49	\$0.49
Reduced business taxes from curtailed crop production	\$0.02	\$0.02	\$0.02	\$0.02	\$0.02	\$0.02
Reduced jobs from curtailed crop production	6	6	6	6	6	6
Brown County						
Reduced income from curtailed crop production	\$1.31	\$1.31	\$1.31	\$1.30	\$1.30	\$1.30
Reduced business taxes from curtailed crop production	\$0.06	\$0.06	\$0.06	\$0.06	\$0.06	\$0.06
Reduced jobs from curtailed crop production	31	31	31	31	31	31
Coke County						

Impacts by county are not presented in the 2011 Region F Water Plan. For full analysis, see TWDB correspondence to John Grant from Stuart Norvell dated July 22, 2010, titled "Socioeconomic impact analysis of not meeting water needs for the 2011 Region F Regional Water Plan."

Impacts by WUG for the Brazos G (\$ millions)

Bell County (\$millions)						
	2010	2020	2030	2040	2050	2060
Bartlett						
Monetary value of domestic water shortages	\$0.12	\$0.58	\$0.72	\$0.77	\$0.81	\$0.85
Lost utility revenues	\$0.11	\$0.14	\$0.16	\$0.17	\$0.18	\$0.19
Bell Millam WSC						
Monetary value of domestic water shortages	\$0.00	\$0.02	\$0.05	\$0.09	\$0.38	\$0.54
Lost utility revenues	\$0.00	\$0.04	\$0.09	\$0.13	\$0.15	\$0.17
Jarrell-Schwertner WSC						
Monetary value of domestic water shortages	\$0.00	\$0.11	\$0.88	\$1.89	\$1.76	\$2.39
Lost income from reduced commercial business activity	\$0.00	\$0.00	\$0.00	\$0.17	\$0.27	\$0.41
Lost jobs due to reduced commercial business activity	0	0	0	5	8	13
Lost state and local taxes from reduced commercial business activity	\$0.00	\$0.00	\$0.00	\$0.02	\$0.04	\$0.06
Lost utility revenues	\$0.00	\$0.06	\$0.14	\$0.18	\$0.20	\$0.28
Little River Academy						
Monetary value of domestic water shortages	\$0.012	\$0.019	\$0.024	\$0.028	\$0.033	\$0.012
Lost utility revenues	\$0.00	\$0.02	\$0.04	\$0.04	\$0.05	\$0.05
Morgan's Point Resort						
Monetary value of domestic water shortages	\$2.53	\$5.20	\$6.53	\$5.99	\$6.35	\$6.72
Lost income from reduced commercial business activity	\$0.00	\$0.00	\$0.00	\$0.71	\$0.77	\$0.84
Lost jobs due to reduced commercial business activity	0	0	0	22	24	26
Lost state and local taxes from reduced commercial business activity	\$0.00	\$0.00	\$0.00	\$0.10	\$0.11	\$0.12
Lost utility revenues	\$0.36	\$0.45	\$0.54	\$0.59	\$0.63	\$0.66

Impacts by county are not presented in the 2011 Brazos G Region Water Plan. For full analysis, see TWDB correspondence to Dale Spurgin from Stuart Norvell dated May 17, 2010, titled "Socioeconomic impact analysis of not meeting water needs for the 2011 Brazos G Regional Water Plan."

Impacts on Mining the Lower Colorado (K) (\$ millions)

Mining (\$millions)						
	2010	2020	2030	2040	2050	2060
Burnet County						
Reduced income from reduced mining activity	\$1.45	\$1.62	\$1.69	\$1.76	\$1.80	\$1.89
Reduced business taxes from reduced mining activity	\$0.08	\$0.09	\$0.09	\$0.09	\$0.10	\$0.10
Reduced jobs from reduced mining activity	14	16	17	18	18	19
Colorado County						
Reduced income from reduced mining activity	\$16.12	\$15.20	\$13.63	\$11.50	\$8.83	\$9.16
Reduced business taxes from reduced mining activity	\$1.12	\$1.05	\$0.94	\$0.80	\$0.61	\$0.63
Reduced jobs from reduced mining activity	145	137	123	103	79	82
Fayette County						
Reduced income from reduced mining activity	\$0.00	\$0.00	\$0.08	\$0.11	\$0.11	\$0.11
Reduced business taxes from reduced mining activity	\$0.00	\$0.00	\$0.01	\$0.01	\$0.01	\$0.01
Reduced jobs from reduced mining activity	0	0	1	1	1	1

Impacts by county are not presented in the 2011 Lower Colorado Region Water Plan. For full analysis, see TWDB correspondence to John Burke from Stuart Norvell dated May 21, 2010, titled "Socioeconomic impact analysis of not meeting water needs for the 2011 Lower Colorado Regional Water Plan."

Potential socioeconomic impact of proposed DFCs

During the first round of joint-planning (2005 – 2010), the TWDB adopted rules to describe what is to be considered in the petition process. With the passage of Senate Bill 660, these **rules were repealed**.

TAC § 356.45. Board Evaluation, Consideration, and Deliberation

(a) The executive administrator shall prepare a list of findings based on evidence received at the hearing and may also provide a summary, analysis, and recommendations relating to revisions to districts' plans and desired future conditions to the board.

Potential socioeconomic impact of proposed DFCs (cont. – note, these rules repealed with passage of SB 660 in 2011)

TAC § 356.45. Board Evaluation, Consideration, and Deliberation (cont.)

(b) The executive administrator or the board may, at any stage of the process described in this subchapter, terminate the proceedings on a petition when an agreement is reached resolving the petition or a petition has been withdrawn. Any such agreements shall become a part of the record.

(c) The board shall base any recommended revisions to a plan and to the desired future conditions only on evidence in the hearing record. The board shall consider the following criteria when determining whether a desired future condition is reasonable:

Potential socioeconomic impact of proposed DFCs (cont. – note, these rules repealed with passage of SB 660 in 2011)

(1) the adopted desired future conditions are physically possible and the consideration given groundwater use;

(2) the socio-economic impacts reasonably expected to occur;

(3) the environmental impacts including, but not limited to, impacts to spring flow or other interaction between groundwater and surface water;

(4) the state's policy and legislative directives;

(5) the impact on private property rights;

(6) the reasonable and prudent development of the state's groundwater resources; and

(7) any other information relevant to the specific desired future condition.

Petitions from the first round and socioeconomic impacts considered

- GMA 1
 - TWDB report dated February 10, 2010
- GMA 12
 - TWDB report dated June 13, 2012

Potential socioeconomic impact of proposed DFCs

- TWC Chapter 36.108 (d) and (d) (6) states, “the districts shall consider groundwater availability models and other data or information for the management area and shall propose for adoption desired future conditions for the relevant aquifers within the management area. Before voting on the proposed desired future conditions of the aquifers . . . the districts shall consider **socioeconomic impacts reasonably expected to occur;**”
- Proposed DFCs are quantitative descriptions at specific points in time (decadal) of groundwater resources in a management area.
- This requirement was added to the requirements of joint planning with the passage of Senate Bill 660 in 2011.

Potential socioeconomic impact of proposed DFCs

- From a qualitative perspective, both positive and negative socioeconomic impacts may potentially result from implementation of proposed DFCs.
 - Proposed DFCs may require conversion to alternative supply, which may have increased costs associated to infrastructure, operation, and maintenance.
 - Proposed DFCs may reduce/eliminate the costs of lowering pumps and either drilling or deepening of wells.

Potential socioeconomic impact of proposed DFCs

- Positive and negative socioeconomic impacts potentially resulting from implementation of proposed DFCs:
 - Proposed DFCs may serve to sustain/enhance economic growth due to assurances provided by diversified water portfolio.
 - Alternatives to proposed DFCs may result in short-term reduction in utility rates due to reduction in cost of water management strategy implementation.
 - Alternatives to proposed DFCs may result in significant but unquantified production costs due to transition from confined to unconfined conditions in local aquifers.

Potential socioeconomic impact of proposed DFCs

- Positive and negative socioeconomic impacts potentially resulting from implementation of proposed DFCs:
 - Others - Discussion

Today's Considerations

- TWC Section 36.108 (d) (6) – socioeconomic impacts reasonably expected to occur
- TWC Section 36.108 (d) (7) – impact on the interests and rights in private property

Texas Water Code Section 36.108 (d) (7)

Consideration of the impact on the interests and rights in private property, including ownership and the rights of management area landowners and their lessees and assigns in groundwater, as recognized under Texas Water Code Section 36.002.

Texas Water Code Section 36.108 (d) (7)

For reference, Texas Water Code Section 36.002 states:

(a) The legislature recognizes that a landowner owns the groundwater below the surface of the landowner's land as real property.

(b) The groundwater ownership and rights described by this section:

(1) entitle the landowner, including a landowner's lessees, heirs, or assigns, to drill for and produce the groundwater below the surface of real property, subject to Subsection (d), without causing waste or malicious drainage of other property or negligently causing subsidence, but does not entitle a landowner, including a landowner's lessees, heirs, or assigns, to the right to capture a specific amount of groundwater below the surface of that landowner's land; and

Texas Water Code Section 36.108 (d) (7)

For your reference, Texas Water Code Section 36.002 states (cont.):

(2) do not affect the existence of common law defenses or other defenses to liability under the rule of capture.

(c) Nothing in this code shall be construed as granting the authority to deprive or divest a landowner, including a landowner's lessees, heirs, or assigns, of the groundwater ownership and rights described by this section.

Texas Water Code 36.002

- *(d) This section does not:*
- *(1) prohibit a district from limiting or prohibiting the drilling of a well by a landowner for failure or inability to comply with minimum well spacing or tract size requirements adopted by the district;*
- *(2) affect the ability of a district to regulate groundwater production as authorized under Section 36.113, 36.116, or 36.122 or otherwise under this chapter or a special law governing a district; or*
- *(3) require that a rule adopted by a district allocate to each landowner a proportionate share of available groundwater for production from the aquifer based on the number of acres owned by the landowner.*

Texas Water Code 36.002

- *(e) This section does not affect the ability to regulate groundwater in any manner authorized under:*
- *(1) Chapter 626, Acts of the 73rd Legislature, Regular Session, 1993, for the Edwards Aquifer Authority;*
- *(2) Chapter 8801, Special District Local Laws Code, for the Harris-Galveston Subsidence District; and*
- *(3) Chapter 8834, Special District Local Laws Code, for the Fort Bend Subsidence District.*

The protection of private property rights by GCDs in GMA 8

The procedural requirements for what should be considered in reviewing the private property rights factor are not prescribed in statute nor do TWDB rules provide any additional guidance. The following list of topics are suggested for discussion:

- Existing uses within the GCD
- Projected future uses within the GCD
- Investment-backed expectations of existing users and property owners within the GCD

The protection of private property rights by GCDs in GMA 8
(Continued)

- Long-term viability of groundwater resources in area
- Availability of water to all properties and ability to allocate MAG through rules after DFC adoption
- Whether immediate cutbacks would be required in setting a particular DFC or whether cutbacks, if any, would need to occur over a certain timeframe

The protection of private property rights by GCDs in GMA 8
(Continued)

- For outcrop areas, how the outcrop depletes rapidly in dry times, and whether drought rules or triggers based on the DFC/MAG for the outcrop could be beneficial to ensure viability of the resource during dry times
- Economic consequences to existing users (i.e., cost to drop pumps, reconfigure or drill new wells upon water table dropping, etc.). Also consider the reverse—economic consequences of less water available to protect the existing users from the economic consequences relevant to existing users—reaching a balance between these two dynamics.

The protection of private property rights by GCDs in GMA 8
(Continued)

- Those GCDs with existing rules developed based on the current DFC might find it helpful to review the rules that the GCD considers relevant as we work to adopt DFCs over the next year. For example, the rules and Management Plan in place based on the current DFCs can help determine how a GCD currently impacts private property rights and whether those same interests are important as we work to adopt DFCs over the next year.
- Focusing on finding a balance, as that balance is defined by each GCD, between all of these considerations

Next meeting

- Results from GAM predictive simulations
- Review and consideration of “non-relevant” aquifer documentation